FLIR

FLIR A655sc™

With its uncooled, high-resolution detector and cutting-edge functionality, the FLIR A655sc helps researchers and scientists accurately quantify thermal patterns, leakage, dissipation, and other heat related factors in equipment, products, and processes in real-time.

www.flir.com/science

SUPERIOR IMAGE QUALITY & SENSITIVITY

Record crisp thermal images, even at high speeds

- Produce clearly detailed 640 x 480 thermal images using the maintenance free vanadium oxide (VoX) microbolometer
- Detect temperature differences as small as 50 mK
- Record 14-bit, full-frame data at up to 50 Hz, or 200 Hz with windowing
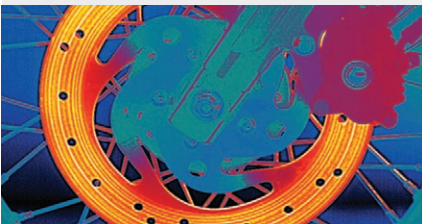
EASY, FLEXIBLE DATA COLLECTION

True plug and play connectivity simplifies data monitoring and sharing

- Fast image transfer over GigE Vision, using low-cost standard cables up to 100 meters
- Integrate with FLIR ResearchIR or third-party software seamlessly over Gigabit Ethernet connections
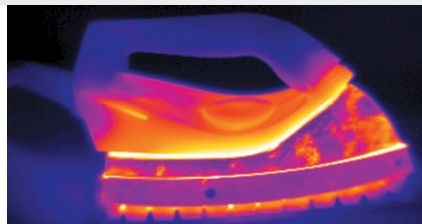- Control the camera with GenICam protocol support

ADVANCED SOFTWARE COMPATIBILITY

Get more out of your data with advanced analysis tools

- Control and capture data directly intoFLIR ResearchIR Max or MathWorks® MATLAB
- Stream data directly to a PC running software for live viewing, recording, analysis, and sharing.
- Integrate with your proprietary software through optional Software Developers Kit (SDK)

Motorcycle break testing.

Thermal quality control on domestic appliances.

1.800.561.8187   www.**iТМ**.com   **information@itm.com**

IMAGING SPECIFICATIONS

System Overview	FLIR A655sc
Detector Type	Uncooled Microbolometer
Spectral Range	7.5 – 14.0 μm
Resolution	640 x 480
Detector Pitch	17 μm
NETD	<30 mK

Imaging	
Time Constant	<8 ms
Frame Rate (Full Window)	50 Hz
Subwindow mode	User-Selected, 640 x 240 or 640 x 120 (Gigabit Ethernet Only)
Maximum Frame Rate (@ Min. Window)	200 Hz (640 × 120)
Dynamic Range	16-bit
Digital Data Streaming	Gigabit Ethernet (50/100/200 Hz) USB(25 Hz)
Command and Control	Gigabit Ethernet, USB

Measurement	
Standard Temperature Range	−40°C to 150°C (−40°F to 302°F) 100°C to 650°C (212°F to 1,202°F)
Optional Temperature Range	Up to 2,000°C (3,632°F)
Accuracy	±2°C or ±2% of Reading

Optics	
Camera f/#	f/1.0
Available Lenses	6.5 mm (80°), 13.1 mm (45°), 24.6 mm (25°), 41.3 mm (15°), 88.9 mm (7°)
Focus	Automatic or Manual (Motorized)
Close-up / Microscopes	Close-up 25 μm, 50 μm, 100 μm

Image Presentation	
Digital Data	Via PC Using ResearchIR Software

General	
Operating Temperature Range	-15°C to 50°C (572°F to 3,632°F)
Storage Temperature Range	-40°C to 70°C (-40°F to 158°F)
Encapsulation	IP 30 (IEC 60529)
Bump / Vibration	25 g (IEC 60068-2-29) / 2 g (IEC 60068-2-6)
Power	12/24 VDC, 24 W Absolute Max.
Weight	0.9 kg (1.98 lb)
Size	216 × 73 × 75 mm (8.5 × 2.9 × 3.0 in)
Mounting	¼"-20 (on three sides), 2 x M4 (on three sides)

Power Connector: 2-pole jackable
screw terminal
Allowed Voltage Range: 10-30 VDC

Gigabit Ethernet Port: RJ-45 connector,
1000 MB

USB mini-B connector

Hardware reset

Power indicator

Digital I/O Connector: 6-pole screw terminal
Digital Out: 2 outputs, opto-isolated 10-30 V supply, max 100 mA
Digital In: 2 inputs, opto-isolated 10-30 V

MathWorks®

FLIR® | The World's Sixth Sense®